

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017745**Date Inspected:** 01-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** TOWER & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

**TOWER JETTY**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007186

**Ultrasonic Testing (UT)**

This QA inspector performed UT of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

**SOUTH TOWER LIFT-4 AT 119M ELEVATION, CROSS BRACING CONNECTION PLATE****WD1 – GUSA3 – 3 – 119M – S – 3A/B**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007193

**Ultrasonic Testing (UT)**

This QA inspector performed UT of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The

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weld designation reviewed as follows:

EAST TOWER LIFT-4 AT 119M ELEVATION, CROSS BRACING CONNECTION PLATE

WD1 – GUSA3 – 3 – 119M – E – 3A/B; 4A/B

WEST TOWER LIFT-4 AT 119M ELEVATION, CROSS BRACING CONNECTION PLATE

WD1 – GUSA3 – 3 – 119M – W – 3A/B; 4A/B

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 18 located on North tower Lift-4 Skin 'E', 119 M Backfill plate NSD1 – FESA4 – 3B/F. Welder is identified as 040581. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 3212 – B – U2a – 2.

(See attached photo)

Weld joint # 16 located on North tower Lift-4 Skin 'A', 119 M Backfill plate NSD1 – FESA4 – 1B/E. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4212 – Tc – U4c – 4.

Weld joint # 18 located on North tower Lift-4 Skin 'E', 119 M Backfill plate NSD1 – FESA4 – 3B/F. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 3212 – B – U2a – 2.

BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 75A located on South tower Grillage cover plate SSD1 – TL5 – 1B/F. Welder is identified as 207745.

ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

Weld joint # 81B located on North tower Grillage cover plate NSD1 – TL5 – 3B/F. Welder is identified as 207745. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

Weld joint # 63B located on South tower Grillage cover plate SSD1 – TL5 – 1B/F. Welder is identified as 207745.

ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 52A located on East tower Grillage cover plate ESD1 – TL5 – 2B/F. Welder is identified as 040699.

ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1.

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Weld joint # 73A located on East tower Grillage cover plate ESD1 – TL5 – 2B/F. Welder is identified as 040699. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – B – U3c – S – 1. (See attached photo)

Repair welding of a weld joint # 07 located on Lift-5 bracket SD1 – BRSA5 – 1 as per the weld repair report # T-WR3740. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 2G (2F) – repair – 1

## ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

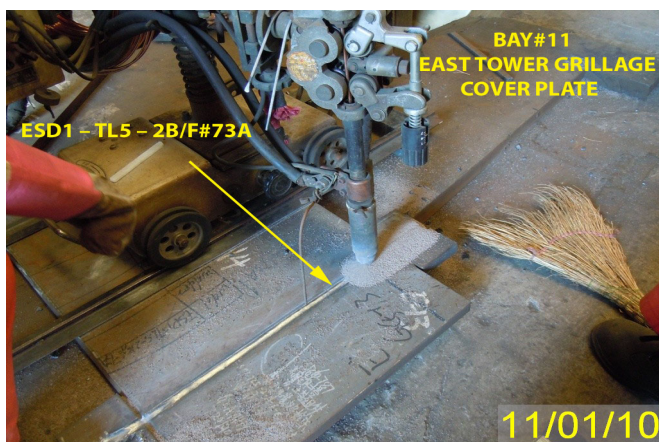
Fluxcored Arc Welding (FCAW):

Weld joint # 001 located on U-rib splice plate GGL – MQ – 1958 – 57. Welder is identified as 040704. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

Weld joint # 031 located on Bike Path, BK004A – 022. Welder is identified as 054460. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 002 located on U-rib splice plate GGL – MQ – 1958 – 68. Welder is identified as 042218. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No Relevant Conversations.

## Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer